



## Myosotella myosotis, Ovatella myosotis

Mouse-ear ovatella, mouse-ear marsh snail, marsh snail, Salt Marsh Snail, European Ovatella

### Threat scores

1. Ecological impact
  - “Berman and Carlton (1991) found that its diet was similar to that of the native saltmarsh snails *Assiminea californica* and *Littorina subrotundata* in Coos Bay, Oregon. They did not, however, find evidence that *Myosotella myosotis* is competitively superior, and concluded that its establishment was not accomplished at the expense of the native snails” (Molnar 2008).
2. Invasive potential
  - No pelagic larvae, so must be spread on materials, or in solid ship ballast, or with live oyster shipments.
3. Geographic extent
  - Reported as invasive along coasts of South Africa, Australia, New Zealand, -no location detail provided.
  - Locally patchy
4. Management difficulty
  - No known controls reported. Consumed by native species in some localities.



### Geography and Habitat

1. Origin: Europe, from Great Britain and the western Baltic Sea to the Mediterranean and Black seas.
2. First introduction: 1927
3. “1st record of *Myosotella myosotis* on the Pacific Coast is from San Francisco Bay in 1871. Probably arrived on the Pacific Coast in transcontinental shipments of Atlantic oysters (*Crassostrea virginica*), solid ballast, or hull foul-ing” (Molnar 2008).
4. Wetlands, coastland, estuaries/bays, brackish water
5. “Typically found under boards & other debris & on plant stems in highest parts of salt marsh. In San Francisco Bay, it has been collected at water salinities of 10-31 parts per thousand, and water temperatures of 16-24° C” (Molnar 2008).

### Invasion Pathways

1. Ballast Water and Sediments
  - Accidental probable
  - Cause- solid ballast
  - “1st record of *Myosotella myosotis* on the Pacific Coast is from San Francisco Bay in 1871. Probably arrived on the Pacific Coast in transcontinental shipments of Atlantic oysters (*Crassostrea virginica*), solid ballast, or hull fouling” (Molnar 2008).
2. Hull/Surface Fouling
  - Accidental probable
  - Cause- egg masses laid on deck equipment
  - “1st record of *Myosotella myosotis* on the Pacific Coast is from San Francisco Bay in 1871. Probably arrived on the Pacific Coast in transcontinental shipments of Atlantic oysters (*Crassostrea virginica*), solid ballast, or hull fouling” (Molnar 2008).

3. Stocking in Open Water
  - Accidental probable
  - Cause- oyster farming
  - “1st record of *Myosotella myosotis* on the Pacific Coast is from San Francisco Bay in 1871. Probably arrived on the Pacific Coast in transcontinental shipments of Atlantic oysters (*Crassostrea virginica*), solid ballast, or hull fouling.” (Molnar 2008).

#### Non native locations

1. 40- Gulf of Maine/Bay of Fundy
2. 41- Virginian
3. 42- Carolinian
4. 56- Puget Trough/Georgia Basin
5. 57- OR, WA, Vancouver Coast and Shelf
6. 58- Northern California
7. 59- Southern California Bight

#### Sources

1. Molnar, Jennifer, et al. 2008. “Assessing the global threat of invasive species to marine biodiversity.” *Frontiers in Ecology and the Environment*. 6 (9), pp. 485-492.
2. <http://conserveonline.org/workspaces/global.invasive.assessment>
3. [http://www.anemoon.org/anemoon/images/soortinfopix-1/OvatelMyDen.jpg/image\\_preview](http://www.anemoon.org/anemoon/images/soortinfopix-1/OvatelMyDen.jpg/image_preview)